

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 4 (canceled)

5. (currently amended) A vacuum processing method for transferring a wafer in atmospheric air to a ~~predetermined~~ position within a vacuum processing chamber through a vacuum transfer chamber using a ~~atmospheric~~ transfer equipment disposed in an atmospheric transfer unit and performing a predetermined treatment to said wafer in said vacuum processing chamber; said method comprising:

an atmospheric transfer step of transferring ~~the said~~ wafer in atmospheric air to a ~~said vacuum transfer equipment-chamber~~ using an ~~said~~ atmospheric transfer equipment disposed in atmospheric air;

a vacuum transfer step of transferring ~~the said~~ wafer received from said atmospheric transfer equipment to ~~said predetermined~~ a position for said predetermined treatment within said vacuum processing chamber using a vacuum transfer equipment disposed within a ~~said~~ vacuum transfer chamber connecting the ~~said atmospheric air-transfer unit~~ and said vacuum processing chamber; and

a step of detecting ~~the displacement of said wafer being transferred using a wafer position sensor disposed near an ingress path leading to said vacuum processing chamber~~ in a transverse direction with respect to a traveling direction near an ingress path of said wafer to said vacuum processing chamber by comparing a correct position of said wafer passing a line which is predetermined in advance with

an actual position of said wafer being transferred by said vacuum transfer equipment; and

a step of moving a vacuum robot of said vacuum transfer equipment which transfers said wafer in the transverse direction with respect to the traveling direction so as to correct the detected displacement of said wafer.

6. (currently amended) ~~A vacuum processing method for transferring a wafer to a predetermined position within a vacuum processing chamber using a transfer equipment and performing a predetermined treatment to said wafer in said vacuum processing chamber; said method comprising:~~

~~an atmospheric transfer step of transferring the a wafer in atmospheric air to a vacuum transfer equipment chamber using an atmospheric transfer equipment disposed in atmospheric air;~~

~~a vacuum transfer step of transferring the said wafer received from said atmospheric transfer equipment to a said predetermined position for a predetermined treatment within said a vacuum processing chamber using a vacuum transfer equipment disposed within a said vacuum transfer chamber connecting the said atmospheric air transfer equipment and said vacuum processing chamber;~~

~~a step of detecting the displacement of said wafer being transferred using a wafer position sensor disposed near an ingress path leading to said vacuum processing chamber; and~~

~~— a step of correcting the position of said wafer based on the displacement being detected in a transverse direction with respect to a traveling direction near an ingress path of said wafer to said vacuum processing chamber by comparing a correct~~

position of the wafer passing a line which is predetermined in advance with an actual position of said wafer being transferred by said vacuum transfer equipment; and
a step of correcting the displacement of said wafer by moving an arm of said vacuum transfer equipment in the transverse direction with respect to the traveling direction based on the result of detection performed by a wafer position sensor.

7. (currently amended) A vacuum processing method according to claim 5 or claim 6, wherein

the step of detecting the displacement of said wafer comprises a step of detecting ~~the~~ a rim position of said wafer being transferred in the vacuum transfer step using at least three optical sensors.

8. (currently amended) A vacuum processing method according to claim 5 or claim 6, wherein

initial positioning of said wafer is performed in atmospheric air~~atmosphere~~, and the displacement of said wafer is detected directly before the ~~stage~~ predetermined treatment within said vacuum processing chamber.